

REMARKS

Claims 2-5 and 20 are pending in this application, of which the Claim 20 has been amended.

No new claims have been added.

- (1) Claims 2-5 and 20 were rejected under 35 U.S.C. § 03(a) as being unpatentable over Igarashi et al. (U.S. 5,882,755).

Claim 20 has been amended, whose basis is found from page 8, line 16 to page 9, lines 13.

First, Igarashi et al. merely suggest impregnating a cationic polymer in the ink-receiving layer (abstract), and Igarashi et al. do not disclose the claimed amount of the cationic polymer, as admitted by the Office Action. In addition to the difference between the impregnation and the inclusion as previously stated by the Applicant, the amounts of the cationic polymer of the Examples disclosed by Igarashi et al. do not fall within the claimed amount of the present invention. According to the disclosure of Igarashi et al., the Ink-receiving layers A to G in the Examples of Igarashi et al. have the compositions shown in the calculation sheet as attached.

Thus, the specific amounts of the cationic polymer disclosed by Igarashi et al. range from 5.88wt% to 15.79wt%. The ink-receiving layer A does not include any cationic polymer. It is considered that the Examples of Igarashi et al. need much more cationic polymer than the present

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invention because the Examples of Igarashi et al. were prepared by means of the inclusion. This merit is considered to be as the first unexpected result of the claimed invention.

Second, claim 20 has been amended to incorporate the limitation that the coating includes a combination of the first silica and the second silica. Igarashi et al. do not disclose or teach the advantage of the combination of two kinds of silica. Moreover, although Examples A to G of Igarashi et al. use two kinds of silica, the specific fillers used by Igarashi et al., that is, Fine Seal X37B of Tokuyama Soda Co., Ltd. and Snowtex-O of Nissan Chemical Industries Ltd., have diameters of 3.5-3.9 μ m and 10-20nm, respectively, whose combination of the diameters do not fall within the claimed combination of the diameters of the first silica and the second silica, that is, 5 μ m or less and 10 μ m or more. Please note that the diameter of Snowtex-O is much smaller than the claimed diameters.

The Applicant hereby submits a Table showing the properties of Fine Seal series by Tokuyama Soda Co., Ltd. together with a declaration under 37CFR § 1.132, and copies of brochure downloaded from a web site of Nissan Chemical Industries Ltd., showing the properties of Snowtex-O at the page 4/5.

Since only Example 8 has been fallen within the amended claims, please consider Examples 1-7 in the specification as Comparative Examples, though the original specification describes them as the Examples of the invention.

Then, please compare Example 6 with Examples 7 and 8 in the specification of the present invention, considering the declaration under CFR § 1.132, showing experimental data. The declaration shows that Examples 7 and 8 absorbed ink for a much shorter period than Example 6. This result shows that an ink absorption property has been significantly improved in Examples 7 and 8, compared with Example 6. This is the second unexpected result of the present invention. Such superiority in the ink absorption property results from that the combination of the first silica having an average diameter of 5 μ m or less and the second silica having an average diameter of 10 μ m or more, as described from page 8, line 16 to page 9, lines 13. In this respect, it is considered that the first silica (diameter of 5 μ m or less) contributes to increase the abrasive resistance and the second silica (diameter of 10 μ m or more) contributes to increase the ink absorption property. Igarashi et al. do not disclose or suggest using two kinds of silica, especially including one having a diameter of 10 μ m or more in view of improving ink absorption property.

Moreover, comparison of Example 8 with Examples 1-5 and 7 clearly shows improvement of the white paper portion abrasion water-resistance in Example 8, as shown in Table in the specification. Such improvement should be considered as the third unexpected result of the claimed invention. It is concluded that the reducing of the cationic polymer has improved the white paper portion abrasion water-resistance, and such reducing can be accomplished only by adjusting the pH value of the coating liquid to 4 or less and impregnating the cationic polymer.

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Therefore, it is evident that among Examples 1-8, only Example 8 shows superior properties in both of the ink absorption and the abrasive resistance in a wet condition. In other words, only Example 8 provides with a well-balanced feature, and this feature comes from the unexpected results of the present invention, which are obtained by impregnating the cationic polymer at the claimed amount and by using the combination of the first silica and the second silica.

If the reference touches, overlaps or is within the claimed range, but if no specific examples falling within the claimed range are disclosed, unexpected results of the claimed invention will show that the claimed invention is not anticipated by the reference. The unexpected results also render the claims unobvious. MPEP2131.03.

Thus, claim 20 as amended is not obvious over Igarashi et al. Reconsideration of the rejection is respectfully requested.

(2) In view of the above, claims 2-5 and 20, as herein amended, are in condition for allowance. Applicants request such action at an early date.

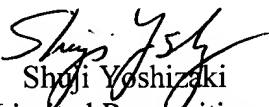
If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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Attachment: Limited Recognition
Petition for Extension of Time
Declaration under CFR§1.132 w/Chart
Another Declaration under CFR§1.132 w/Test Report
Catalogue downloaded from Web site
Calculation Sheet

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